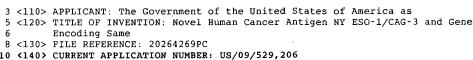ENTERED

RAW SEQUENCE LISTING   DATE: 07/28/2000
PATENT APPLICATION: US/09/529,206   TIME: 13:30:24

Input Set : A:\20264261.app
Output Set: N:\CRF3\07282000\I529206.raw

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     3  <110> APPLICANT: The Government of the United States of America as
     5  <120> TITLE OF INVENTION: Novel Human Cancer Antigen NY ESO-1/CAG-3 and Gene
     6        Encoding Same
     8  <130> FILE REFERENCE: 20264269PC
C--> 10  <140> CURRENT APPLICATION NUMBER: US/09/529,206
C--> 11  <141> CURRENT FILING DATE: 2000-06-13
    13  <150> PRIOR APPLICATION NUMBER: US60/061,428
    14  <151> PRIOR FILING DATE: 1997-10-08
    16  <160> NUMBER OF SEQ ID NOS: 106
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    21  <211> LENGTH: 805
    22  <212> TYPE: DNA
    23  <213> ORGANISM: Homo sapiens
    25  <400> SEQUENCE: 1
    26  agcagggggc gctgtgtgta ccgagaatac gagaatacct cgtgggccct gaccttctct 60
    27  ctgagagccg ggcagaggct ccggagccat gcaggccgaa ggccggggca cagggggttc 120
    28  gacgggcgat gctgatggcc caggaggccc tggcattcct gatgcccag ggggcaatgc 180
    29  tggcggccca ggagaggcgg gtgccacggg cggcagaggt ccccgggggcg caggggcagc 240
    30  aagggcctcg gggccgggag gaggcgcccc gcggggtccg catggcggcg cggcttcagg 300
    31  gctgaatgga tgctgcagat gcggggccag ggggccggag agccgcctgc ttgagttcta 360
    32  cctcgccatg cctttcgcga cacccatgga agcagagctg gcccgcagga gcctggccca 420
    33  ggatgcccca ccgcttcccg tgccaggggt gcttctgaag gagttcactg tgtccggcaa 480
    34  catactgact atccgactga ctgctgcaga ccaccgccaa ctgcagctct ccatcagctc 540
    35  ctgtctccag cagctttccc tgttgatgtg gatcacgcag tgctttctgc ccgtgttttt 600
    36  ggctcagcct ccctcagggc agaggcgcta agcccagcct ggcgcccctt cctaggtcat 660
    37  gcctcctccc ctagggaatg gtcccagcac gagtggccag ttcattgtgg gggcctgatt 720
    38  gtttgtcgct ggaggaggac ggcttacatg tttgtttctg tagaaaataa aactgagcta 780
    39  cgaaaaaaaa aaaaaaaaaa aaaaa 805
    41  <210> SEQ ID NO: 2
    42  <211> LENGTH: 540
    43  <212> TYPE: DNA
    44  <213> ORGANISM: Homo sapiens
    46  <400> SEQUENCE: 2
    47  atgcaggccg aaggccgggg cacagggggt tcgacgggcg atgctgatgg cccaggaggc 60
    48  cctggcattc ctgatggccc agggggcaat gctggcggcc caggagaggc gggtgccacg 120
    49  ggcggcagag gtccccgggg cgcagggggca gcaagggcct cggggccggg aggaggcgcc 180
    50  ccgcgggggtc cgcatggcgg cgcggcttca gggctgaatg gatgctgcag atgcggggcc 240
    51  aggggggccgg agagccgcct gcttgagttc tacctcgcca tgcctttcgc gacacccatg 300
    52  gaagcagagc tggcccgcag gagcctggcc caggatgccc caccgcttcc cgtgccaggg 360
    53  gtgcttctga ggagttcac tgtgtccggc aacatactga ctatccgact gactgctgca 420
    54  gaccaccgcc aactgcagct ctccatcagc tcctgtctcc agcagctttc cctgttgatg 480
    55  tggatcacgc agtgctttct gcccgtgttt ttggctcagc ctccctcagg gcagaggcgc 540
    57  <210> SEQ ID NO: 3
    58  <211> LENGTH: 174
    59  <212> TYPE: DNA
    60  <213> ORGANISM: Homo sapiens
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RAW SEQUENCE LISTING   DATE: 07/28/2000
PATENT APPLICATION: US/09/529,206   TIME: 13:30:24

Input Set : A:\20264261.app
Output Set: N:\CRF3\07282000\I529206.raw

62 <400> SEQUENCE: 3
63 atgctgatgg cccaggaggc cctggcattc ctgatggccc aggggggcaat gctggcggcc 60
64 caggagaggc gggtgccacg ggcggcagag gtccccgggg cgcagggggca gcaagggcct 120
65 cggggccggg aggaggcgcc ccgcggggtc cgcatggcgg cgcggcttca gggc   174
67 <210> SEQ ID NO: 4
68 <211> LENGTH: 180
69 <212> TYPE: PRT
70 <213> ORGANISM: Homo sapiens
72 <400> SEQUENCE: 4
73 Met Gln Ala Glu Gly Arg Gly Thr Gly Gly Ser Thr Gly Asp Ala Asp
74 1   5   10   15
76 Gly Pro Gly Gly Pro Gly Ile Pro Asp Gly Pro Gly Gly Asn Ala Gly
77   20   25   30
79 Gly Pro Gly Glu Ala Gly Ala Thr Gly Gly Pro Gly Pro Arg Gly Ala
80   35   40   45
82 Gly Ala Ala Arg Ala Ser Gly Pro Gly Gly Gly Ala Pro Arg Gly Pro
83   50   55   60
85 His Gly Gly Ala Ala Ser Gly Leu Asn Gly Cys Cys Arg Cys Gly Ala
86 65   70   75   80
88 Arg Gly Pro Glu Ser Arg Leu Leu Glu Phe Tyr Leu Ala Met Pro Phe
89   85   90   95
91 Ala Thr Pro Met Glu Ala Glu Leu Ala Arg Arg Ser Leu Ala Gln Asp
92   100   105   110
94 Ala Pro Pro Leu Pro Val Pro Gly Val Leu Leu Lys Glu Phe Thr Val
95   115   120   125
97 Ser Gly Asn Ile Leu Thr Ile Arg Leu Thr Ala Ala Asp His Arg Gln
98   130   135   140
100 Leu Gln Leu Ser Ile Ser Ser Cys Leu Gln Leu Ser Leu Leu Met
101 145   150   155   160
103 Trp Ile Thr Gln Cys Phe Leu Pro Val Phe Leu Ala Gln Pro Pro Ser
104   165   170   175
106 Gly Gln Arg Arg
107   180
110 <210> SEQ ID NO: 5
111 <211> LENGTH: 58
112 <212> TYPE: PRT
113 <213> ORGANISM: Homo sapiens
115 <400> SEQUENCE: 5
116 Met Leu Met Ala Gln Glu Ala Leu Ala Phe Leu Met Ala Gln Gly Ala
117 1   5   10   15
119 Met Leu Ala Ala Gln Glu Arg Arg Val Pro Arg Ala Ala Glu Val Pro
120   20   25   30
122 Gly Ala Gln Gly Gln Gln Gly Pro Arg Gly Arg Glu Glu Ala Pro Arg
123   35   40   45
125 Gly Val Arg Met Ala Ala Arg Leu Gln Gly
126   50   55
129 <210> SEQ ID NO: 6
130 <211> LENGTH: 9
131 <212> TYPE: PRT

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132 <213> ORGANISM: Homo sapiens
134 <400> SEQUENCE: 6
135 Ala Gln Pro Pro Ser Gly Gln Arg Arg
136   1               5
139 <210> SEQ ID NO: 7
140 <211> LENGTH: 9
141 <212> TYPE: PRT
142 <213> ORGANISM: Homo sapiens
144 <400> SEQUENCE: 7
145 Thr Pro Met Glu Ala Glu Leu Ala Arg
146   1               5
149 <210> SEQ ID NO: 8
150 <211> LENGTH: 9
151 <212> TYPE: PRT
152 <213> ORGANISM: Homo sapiens
154 <400> SEQUENCE: 8
155 Pro Met Glu Ala Glu Leu Ala Arg Arg
156   1               5
159 <210> SEQ ID NO: 9
160 <211> LENGTH: 9
161 <212> TYPE: PRT
162 <213> ORGANISM: Homo sapiens
164 <400> SEQUENCE: 9
165 Gly Ala Thr Gly Gly Arg Gly Pro Arg
166   1               5
169 <210> SEQ ID NO: 10
170 <211> LENGTH: 9
171 <212> TYPE: PRT
172 <213> ORGANISM: Homo sapiens
174 <400> SEQUENCE: 10
175 Gly Pro Arg Gly Ala Gly Ala Ala Arg
176   1               5
179 <210> SEQ ID NO: 11
180 <211> LENGTH: 9
181 <212> TYPE: PRT
182 <213> ORGANISM: Homo sapiens
184 <400> SEQUENCE: 11
185 Leu Ala Gln Pro Pro Ser Gly Gln Arg
186   1               5
189 <210> SEQ ID NO: 12
190 <211> LENGTH: 9
191 <212> TYPE: PRT
192 <213> ORGANISM: Homo sapiens
194 <400> SEQUENCE: 12
195 Val Ser Gly Asn Ile Leu Thr Ile Arg
196   1               5
199 <210> SEQ ID NO: 13
200 <211> LENGTH: 9
201 <212> TYPE: PRT
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RAW SEQUENCE LISTING   DATE: 07/28/2000
PATENT APPLICATION: US/09/529,206   TIME: 13:30:24

Input Set : A:\20264261.app
Output Set: N:\CRF3\07282000\I529206.raw

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202 <213> ORGANISM: Homo sapiens
204 <400> SEQUENCE: 13
205 Ile Arg Leu Thr Ala Ala Asp His Arg
206   1           5
209 <210> SEQ ID NO: 14
210 <211> LENGTH: 9
211 <212> TYPE: PRT
212 <213> ORGANISM: Homo sapiens
214 <400> SEQUENCE: 14
215 Ser Gly Pro Gly Gly Gly Ala Pro Arg
216   1           5
219 <210> SEQ ID NO: 15
220 <211> LENGTH: 10
221 <212> TYPE: PRT
222 <213> ORGANISM: Homo sapiens
224 <400> SEQUENCE: 15
225 Thr Val Ser Gly Asn Ile Leu Thr Ile Arg
226   1           5            10
229 <210> SEQ ID NO: 16
230 <211> LENGTH: 10
231 <212> TYPE: PRT
232 <213> ORGANISM: Homo sapiens
234 <400> SEQUENCE: 16
235 Thr Ile Arg Leu Thr Ala Ala Asp His Arg
236   1           5            10
239 <210> SEQ ID NO: 17
240 <211> LENGTH: 10
241 <212> TYPE: PRT
242 <213> ORGANISM: Homo sapiens
244 <400> SEQUENCE: 17
245 Ala Thr Pro Met Glu Ala Glu Leu Ala Arg
246   1           5            10
249 <210> SEQ ID NO: 18
250 <211> LENGTH: 10
251 <212> TYPE: PRT
252 <213> ORGANISM: Homo sapiens
254 <400> SEQUENCE: 18
255 Phe Leu Ala Gln Pro Pro Ser Gly Gln Arg
256   1           5            10
259 <210> SEQ ID NO: 19
260 <211> LENGTH: 10
261 <212> TYPE: PRT
262 <213> ORGANISM: Homo sapiens
264 <400> SEQUENCE: 19
265 Thr Pro Met Glu Ala Glu Leu Ala Arg Arg
266   1           5            10
269 <210> SEQ ID NO: 20
270 <211> LENGTH: 10
271 <212> TYPE: PRT
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                RAW SEQUENCE LISTING              DATE: 07/28/2000
                PATENT APPLICATION:  US/09/529,206    TIME: 13:30:24

                Input Set : A:\20264261.app
                Output Set: N:\CRF3\07282000\I529206.raw

  272 <213> ORGANISM: Homo sapiens
  274 <400> SEQUENCE: 20
  275 Arg Cys Gly Ala Arg Gly Pro Glu Ser Arg
  276   1           5                   10
  279 <210> SEQ ID NO: 21
  280 <211> LENGTH: 10
  281 <212> TYPE: PRT
  282 <213> ORGANISM: Homo sapiens
  284 <400> SEQUENCE: 21
  285 Ala Ala Ser Gly Leu Asn Gly Cys Cys Arg
  286   1           5                   10
  289 <210> SEQ ID NO: 22
  290 <211> LENGTH: 10
  291 <212> TYPE: PRT
  292 <213> ORGANISM: Homo sapiens
  294 <400> SEQUENCE: 22
  295 Leu Ala Gln Pro Pro Ser Gly Gln Arg Arg
  296   1           5                   10
  299 <210> SEQ ID NO: 23
  300 <211> LENGTH: 10
  301 <212> TYPE: PRT
  302 <213> ORGANISM: Homo sapiens
  304 <400> SEQUENCE: 23
  305 Arg Gly Pro Arg Gly Ala Gly Ala Ala Arg
  306   1           5                   10
  309 <210> SEQ ID NO: 24
  310 <211> LENGTH: 10
  311 <212> TYPE: PRT
  312 <213> ORGANISM: Homo sapiens
  314 <400> SEQUENCE: 24
  315 Leu Asn Gly Cys Cys Arg Cys Gly Ala Arg
  316   1           5                   10
  319 <210> SEQ ID NO: 25
  320 <211> LENGTH: 10
  321 <212> TYPE: PRT
  322 <213> ORGANISM: Homo sapiens
  324 <400> SEQUENCE: 25
  325 Ala Ser Gly Pro Gly Gly Gly Ala Pro Arg
  326   1           5                   10
  329 <210> SEQ ID NO: 26
  330 <211> LENGTH: 15
  331 <212> TYPE: PRT
  332 <213> ORGANISM: Homo sapiens
  334 <400> SEQUENCE: 26
  335 Ala Gly Ala Ala Arg Ala Ser Gly Pro Gly Gly Gly Ala Pro Arg
  336   1           5                   10                  15
  339 <210> SEQ ID NO: 27
  340 <211> LENGTH: 14
  341 <212> TYPE: PRT
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY   DATE: 07/28/2000
PATENT APPLICATION: US/09/529,206   TIME: 13:30:25

Input Set : A:\20264261.app
Output Set: N:\CRF3\07282000\I529206.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:620 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:54
L:620 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:54
L:620 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:54